

H.R. 632 - H-Prize Act of 2007

Floor Situation

H.R. 632 is being considered on the floor by suspending the rules and will require a two-thirds majority vote for passage. This legislation was introduced by Representative Daniel Lipinski (D-IL) on January 23, 2007. The bill was ordered to be reported from the Committee on Science and Technology, by voice vote, on May 23, 2007.

H.R. 632 is expected to be considered on the floor on June 6, 2007.

**Note: In the 109th Congress, Representative Bob Inglis (R-SC) introduced identical legislation, H.R. 5143, which passed the House of Representatives by a recorded vote of 416 - 6, 1 Present ([Roll no. 131](#)). The Senate received the bill, but took no further action.*

Summary

H.R. 632 permits the Secretary of the Department of Energy (“the Secretary”) to create a program to competitively award cash prizes to advance the research, development, demonstration, and commercial application of hydrogen energy technologies. To administer this competition, the Secretary is required to enter into an agreement with a private, nonprofit entity to direct the prize competition.

The duties of the administering entity under the Act include:

- Advertising prize competitions and their results;
- Raising funds from private entities and individuals to pay for administrative costs and to contribute to cash prizes;
- Working with the Secretary to develop the criteria for selecting winners in prize competitions, based on goals provided by the Secretary;
- Determining, in consultation with the Secretary, the appropriate amount for each prize to be awarded;
- Selecting judges in accordance with section 4(d), using criteria developed in consultation with the Secretary; and,

- Preventing the unauthorized use or disclosure of a registered participant's intellectual property, trade secrets, and confidential business information.

The sources for the prizes will consist of Federal appropriated funds and any funds appropriated by the administering entity, and any other Federal agencies may offer funds for the prize.

There are 3 prize categories. The first prize category is for advancements in components or systems related to:

- Hydrogen production;
- Hydrogen storage;
- Hydrogen distribution; and,
- Hydrogen utilization.

Every 2 years, the Secretary may award an authorized prize to the most significant advance made in each of the 4 subcategories. Each cash prize may not exceed \$1 million but if less than \$4 million is available for this category, then one or more of the subcategories may be omitted.

The second prize category relates to prototypes of hydrogen-powered vehicles or other hydrogen-based products that meets or exceeds objective performance criteria. The cash prize will be awarded every 2 years (in the alternate year from the advancement award mentioned above) and the award will not be greater than \$4 million. If no participant meets the requirements for the award, the Secretary can decide to not grant the cash prize.

The last prize category is for transformational changes in technologies for the distribution or production of hydrogen that meets or exceeds far-reaching objective criteria. 1 cash prize will be awarded for this category and will not be less than \$10 million. The Federal max for this prize is \$10 million but the administering entity shall seek to match this fund for 3 years (or providing the winner with a \$10 million match for 3 years), which brings the max prize level to \$40 million.

In establishing the criteria for the awards, the Secretary may consult with:

- The Department of Energy's Hydrogen Technical and Fuel Cell Advisory Committee;
- Other Federal agencies, including the National Science Foundation; and,
- Private organizations, including professional societies, industry associations, and the National Academy of Sciences and the National Academy of Engineering.

The judges for this competition will be assembled by the Secretary and will have knowledge for the specific prize categories.

As a result of this competition and Act, the Federal Government is not entitled to any intellectual property rights derived as a consequence of, or direct relation to, the participation by a registered participant in the competition.

H.R. 632 authorizes for fiscal years 2008 through 2017:

- \$20 million for the advancements award;
- \$20 million for the prototypes award;
- \$10 million for the transformational changes awards; and,
- \$2 million for the administrative costs of carrying out this Act.

The programs created under this Act are not to be considered as a substitute for Federal research and development programs.

Background

During President Bush's State of the Union address on January 20003, the President announced a \$1.2 billion Hydrogen Fuel Initiative to develop the technology for commercially viable hydrogen-powered fuel cells to power cars, trucks, homes, and businesses.

The Hydrogen Fuel Initiative and related FreedomCAR activities attempt to make hydrogen fuel-cell vehicles practical and cost-effective for large numbers of Americans by 2020. Hydrogen can be produced from domestic fossil, nuclear, and renewable energy resources.

The U.S. Department of Energy's Hydrogen Program works in partnership with industry, academia, national laboratories, federal and international agencies to:

- Overcome technical barriers through research and development of hydrogen production, delivery, and storage technologies, as well as fuel cell technologies for transportation, distributed stationary power, and portable power applications,
- Address safety concerns and develop model codes and standards,
- Validate and demonstrate hydrogen and fuel cell technologies in real-world conditions, and
- Educate key stakeholders whose acceptance of these technologies will determine their success in the marketplace.

Currently, research and development programs run by the Department of Energy fund work at universities, companies, and laboratories. However, competitions have a successful record of producing more work and advancements in a given field. For example, the British learned to calculate longitude, which greatly helped shipping, by holding a competition.

The Energy Policy Act of 2005 (H.R. 6) grants the DOE the authority to offer prizes and awards. H.R. 6 also included hydrogen-specific language to increase the countries use of hydrogen-powered vehicles and businesses. The bill passed the House of Representatives by a recorded vote of 275 - 156 ([Roll no. 445](#)), on July 28, 2005, and it was signed into law on August 8, 2005 (PL: 109-58).

Cost

The Congressional Budget Office estimates that this bill would cost \$30 million from 2008-2010.

Staff Contact

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